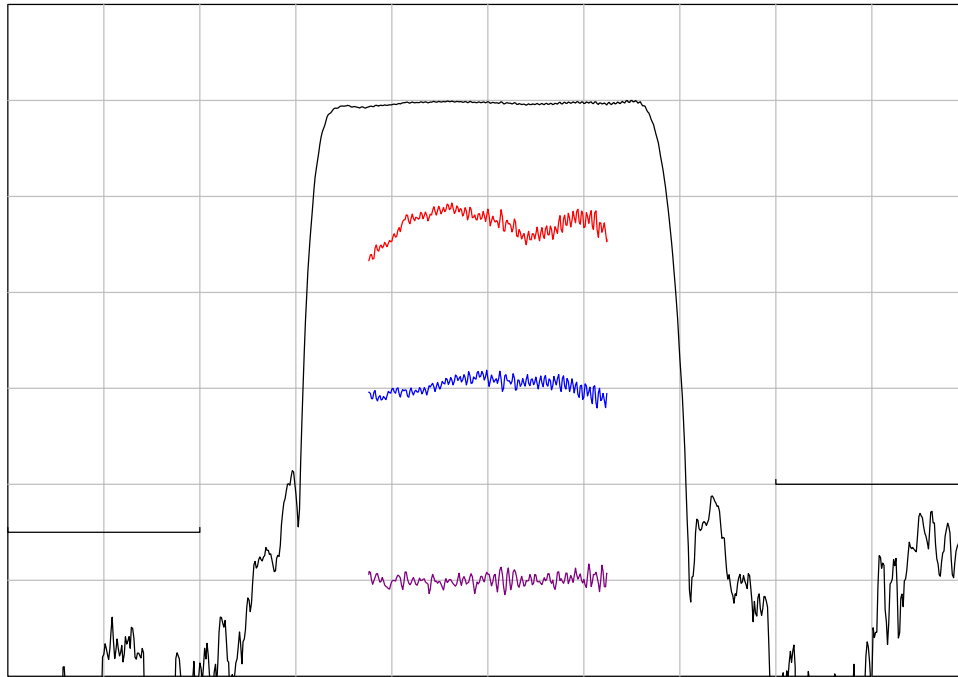


DESCRIPTION

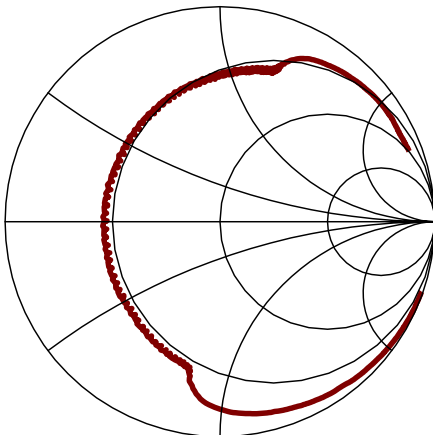
- 70 MHz SAW bandpass filter with 34 MHz bandwidth.
- 13.3 x 6.5 mm LCC package.
- RoHS compliant.

TYPICAL PERFORMANCE

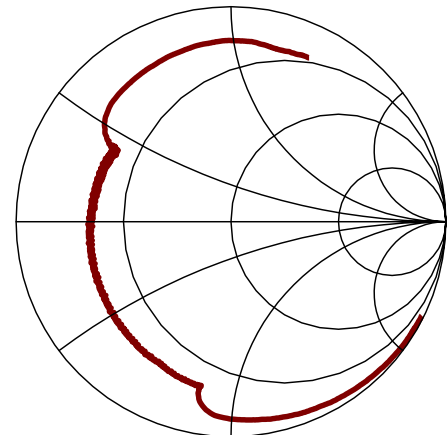


Horizontal: Frequency : 10 MHz/div
 Vertical from Top: Relative Magnitude : 10 dB/div
 Relative magnitude : 1 dB/div
 Phase Linearity : 7 deg/div
 Group Delay Deviation : 50 ns/div

S11 (20 to 120 MHz)



S22 (20 to 120 MHz)



SPECIFICATION

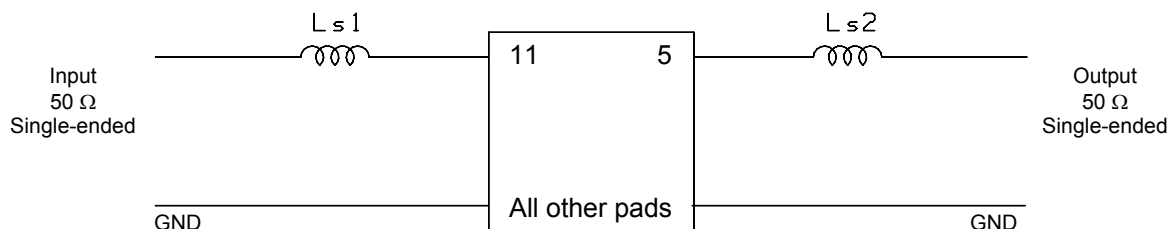
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) ¹	69.80	70.00	70.20	MHz
Insertion Loss	-	18.5	20	dB
1 dB Bandwidth	31.00	32.70	-	MHz
3 dB Bandwidth	34.00	34.40	-	MHz
35 dB Bandwidth	-	40.4	54.00	MHz
Passband Ripple ²	-	0.7	1.0	dB p-p
Phase Ripple ²	-	3.8	7	deg p-p
Group Delay Variation ²	-	15	50	ns p-p
Absolute Delay	-	1.08	1.10	us
Rejection (20 MHz to 40 MHz)	45	54	-	dB
Rejection (100 MHz to 120 MHz)	40	44	-	dB
Source and Load Impedance	-	50	-	ohms
Ambient Temperature (Tref)	-	25	-	°C

Notes: 1. Average of the lower and upper 3 dB band edge frequencies.
2. These are measured in the central 80% of the 3 dB bandwidth.
3. Typical change of filter frequency response with temperature is $\Delta f = (T-T_{ref}) \cdot T_c \cdot F_c$, in ppm.

MAXIMUM RATINGS

Parameter	Min	Typ	Max	Units
Storage Temperature Range	-40	25	85	°C
Operating Temperature Range (T)	20	25	30	°C
Temperature Coefficient of Frequency (Tc) ³	-	-94	-	ppm/°C
Input Power Level	-	10	13	dBm

MATCHING CIRCUIT



Typical component values:

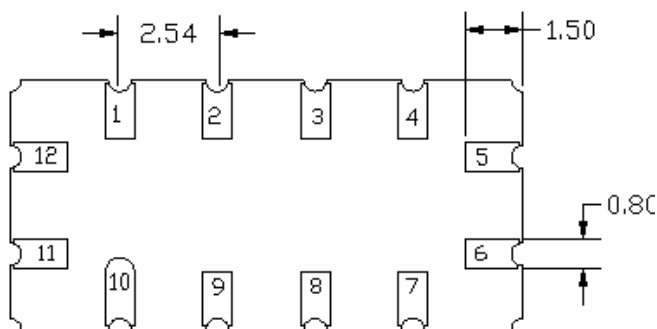
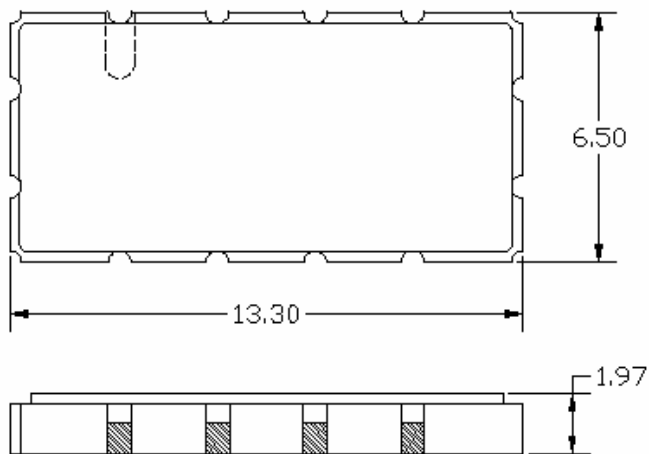
$$L_{s1} = 270 \text{ nH}$$

$$L_{s2} = 120 \text{ nH}$$

Notes:

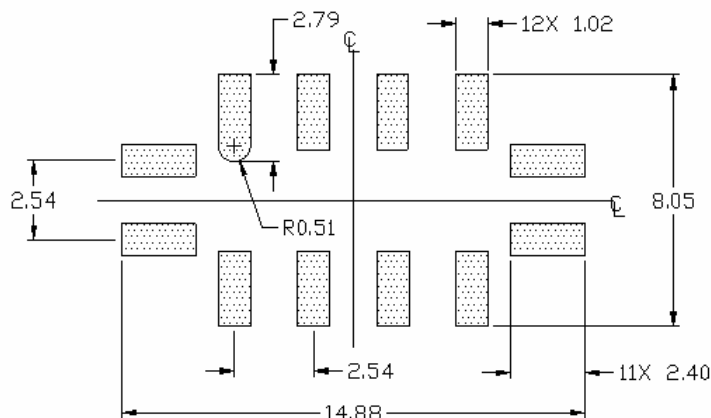
1. Recommend use of 2% tolerance matching components. Inductor Q=45.
2. Component values are for reference only and may change depending on board layout.

PACKAGE OUTLINE



Package Material:
Body: Al_2O_3 ceramic
Lid: Kovar, Ni plated
Terminations: Au plating 1 μ m min,
over a 1.3-8.9 μ m Ni plating

SUGGESTED FOOTPRINT

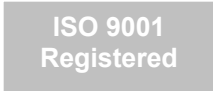


Units: mm

Tolerances are ± 0.15 mm except where indicated and for the overall length and width, which are nominal values.

Pad Configuration:

Input: 11
Output: 5
Ground: All other pads



All specifications are believed to be accurate and reliable. However, Spectrum Microwave reserves the right to make changes without notice.
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